
THOMAS

The Thomas

MODEL XXXI

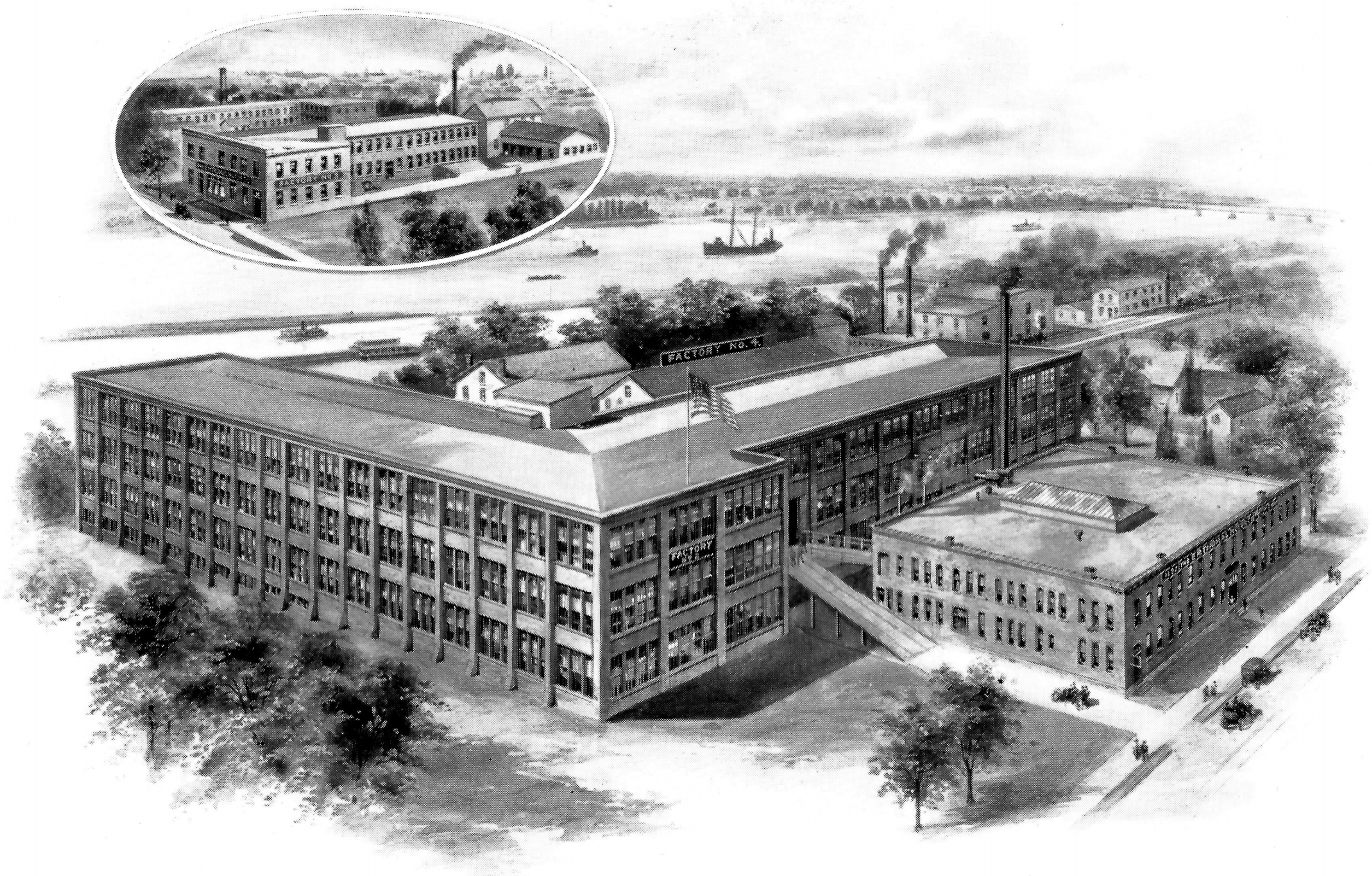


Posted on: August 22, 2019
Edited by: Brian D. Szafranski
of Elma New York USA
No reprinting or republishing
of any form allowed for
commercial gain by anyone
in the USA or elsewhere.

The E. R. Thomas Motor Co.

Buffalo, New York

Member *of* Association *of* Licensed
Automobile Manufacturers



THE PLANT OF THE E. R. THOMAS MOTOR CO., Buffalo, N. Y.

THE THOMAS MODEL XXXI

THE Thomas Flyer has admittedly earned this year the double honor of American leadership and world-wide supremacy.

This distinction has not come to the Thomas through any freak of fortune, but by the slow and sure process of evolution through invaluable and unique experience.

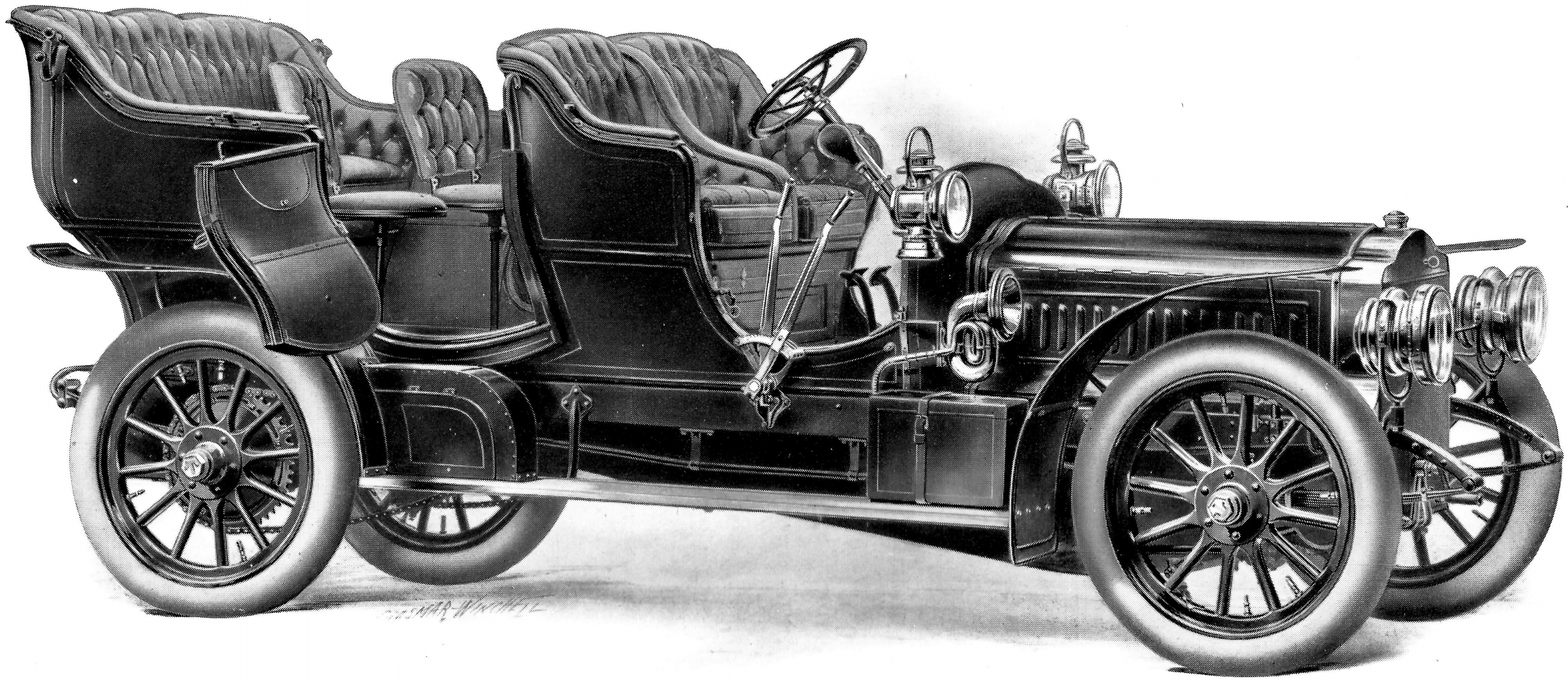
American Leadership

This year's car is not the creation of this year alone. Its inception dates back to the day, years ago, when the E. R. Thomas company began building one of the best bicycles in the world—a better bicycle for far less money than the finest foreign product. The process of evolution continued through 1896, 1897, 1898, 1899 and 1900, in which years the company manufactured thousands of vertical high-speed gas engines, air-cooled motors, gasoline tricycles and the first commercially practical motor cycle built in America.

Years of Experience

In 1901 the goal came a little closer with the manufacture of runabouts and cheap tonneaus. In 1902 we introduced roller bearings on axles. At that time foreign cars were using plain bearings. Finding that we were on the wrong track with horizontal motors, we

Discarding Horizontal Motors



THE THOMAS, MODEL XXXI, 50 H. P. TOURING CAR. Price, $3,500 f. o. b. Buffalo

The car that meets every requirement for efficiency, speed, hill climbing, comfort and artistic beauty. Seats seven facing forward.

This car may be fitted with extension top, canopy, or Victoria top, or racing body, as may be desired. For these special equipments the price would vary according to design and quality.

sacrificed at a cost of many thousands all our former fixtures, stock, tools, etc.

The Three-Cylinder Motor

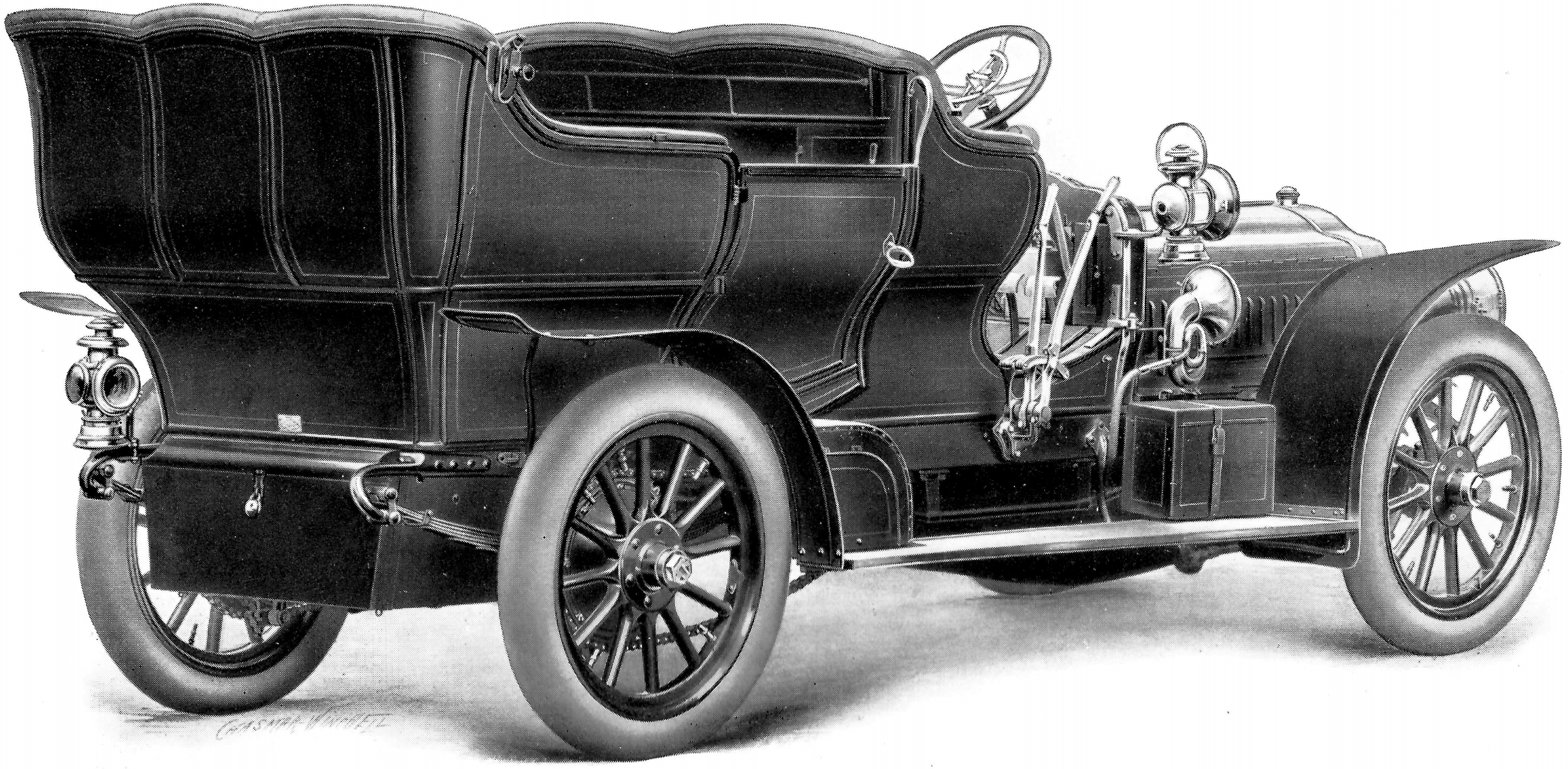
In 1903 two-cylinder vertical motors were the vogue. We went one better and built at a much lower price a three-cylinder vertical motor car which was better than any two-cylinder car made at home or abroad. In this same year the perfect Thomas Flyer began to shape itself more definitely in the introduction of the back-stop safety device, the chain pull between the rear bearings, and the use of the anti-gear stripping device, the direct-drive transmission, and chain oiler on the motor and transmission shafts.

Through all these years E. R. Thomas has kept steadily in view his ultimate ambition of being the builder of one of the greatest, if not the greatest, car in the whole world. That ambition came close to realization in 1904, when the four-cylinder car, with its patented new dust-proof body, leaped into national prominence; the capacity of the factory—400 cars—being taxed to the limit.

World Leadership

Before the season of 1905 had far advanced, the honor of national leadership was practically admitted, in spite of confusing and conflicting claims of superiority on every hand, and before the end of that season discriminating buyers everywhere were predicting eventual world leadership.

This was the great prize for which E. R. Thomas had striven. In spite of the fact that the sale of foreign cars in America has always been insignificant, he had resented their widely published claims of superiority over the American product, and was determined that if experience, superb mechanical talent and a complete disregard of cost could accomplish



THE THOMAS, MODEL XXXI, 50 H. P. TOURING CAR. Three-Quarter Rear View

This illustration gives an excellent idea of the perfect lines of beauty of the patented dust-proof body, the formation of which is such as to absolutely eliminate all air suction and a consequently disagreeable feature of dust and dirt.

it, that this boasted supremacy should be brought to an end.

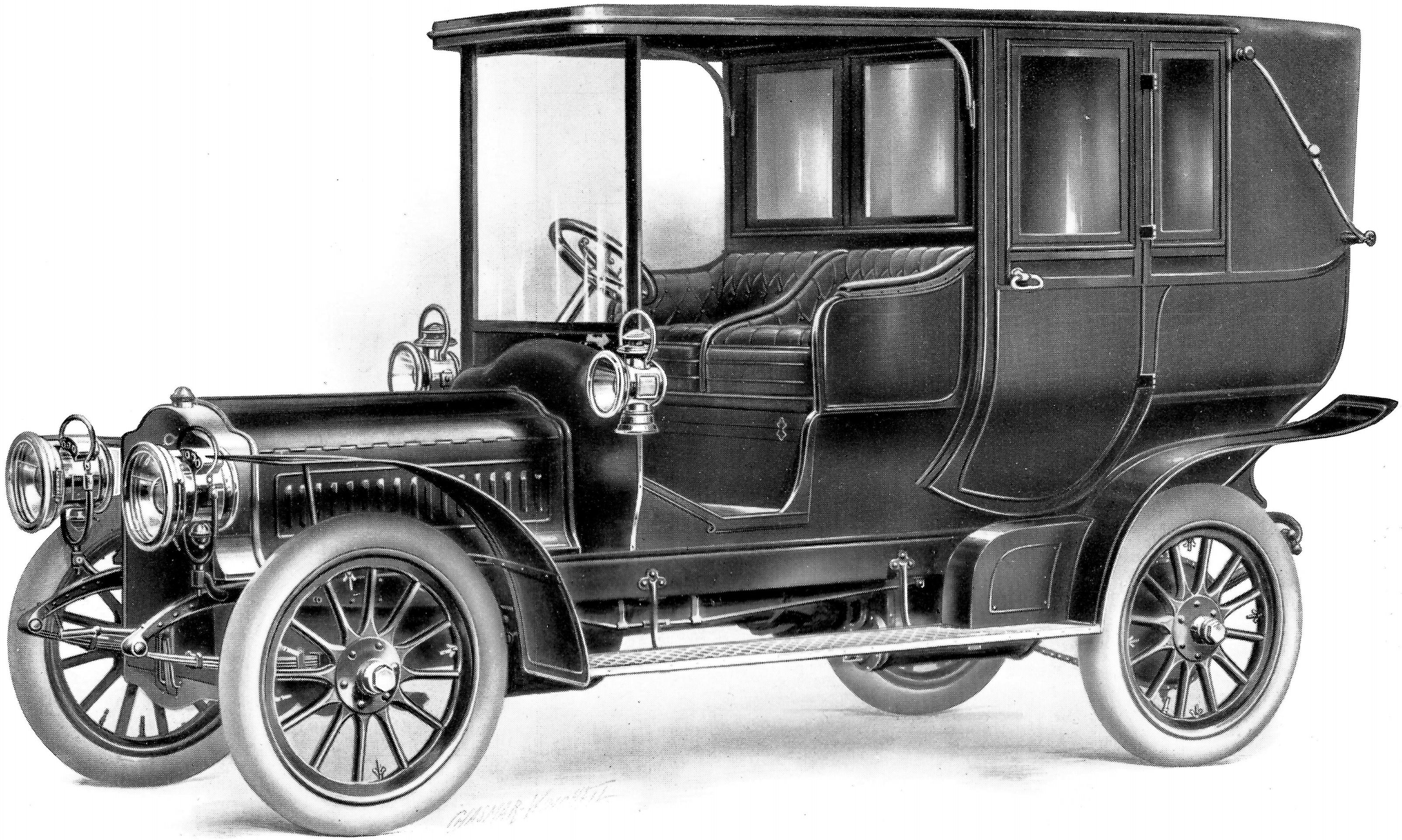
That his ambition has been achieved the most casual student of automobile conditions this year must admit. The 50 horse-power Thomas Flyer was especially constructed to wrest supremacy from foreign cars regardless of price, and we do not hesitate to admit that we have learned much in the construction of the Thomas from the best foreign cars. We acknowledge the debt. But we acknowledge it only as the best builders of locomotives to-day admit their gratitude to Stephenson, who perfected the first steam engine.

As Compared with Foreign Cars

The Thomas *does* follow the foreign type to the extent that it is equally able to stand up under any and all conditions; that it is staunch and strong and rugged and powerful and endowed with the qualities of long life and strenuous service. But the resemblance ends there—and there, also, the superiorities of the Thomas begin. It is true some of the foreign cars may excel in a few minor details, but the new Thomas equals the best foreign cars in every feature essential to efficiency, durability and quiet operation. It excels them in features of safety, anti-friction, clutch and transmission devices; in scientific chain alignment and in simplicity.

The American Car for American Roads

That it is far better adapted to American roads even the most ardent advocate of the foreign type will cheerfully admit. Therefore our advantages more than offset the slight value, if any, of the minor details referred to. These general statements of Thomas superiorities are strikingly demonstrated in the table of comparison which appears elsewhere in this catalogue.



THE THOMAS, MODEL XXXIII, 50 H. P. LANDAULET. Price, $4,600 f. o. b. Buffalo

This body permits the seating of two in front and five in the rear compartment, which contains two comfortable revolving seats which are both collapsible and detachable, and may be stored under the rear seat. The car is equipped with speaking tubes, electric lights, toilet sets, etc., and is upholstered in leather or broadcloth, at the option of the purchaser.

The Thomas, Model XXXI

Future Improvements

Convinced that we have practically attained the standard of automobile construction, we have incurred the very large expense of forging dies for the new model with the idea that both in power and structure the improvements of the near future will be nominal, especially as we are at least one year ahead of all Americans and many foreign competitors.

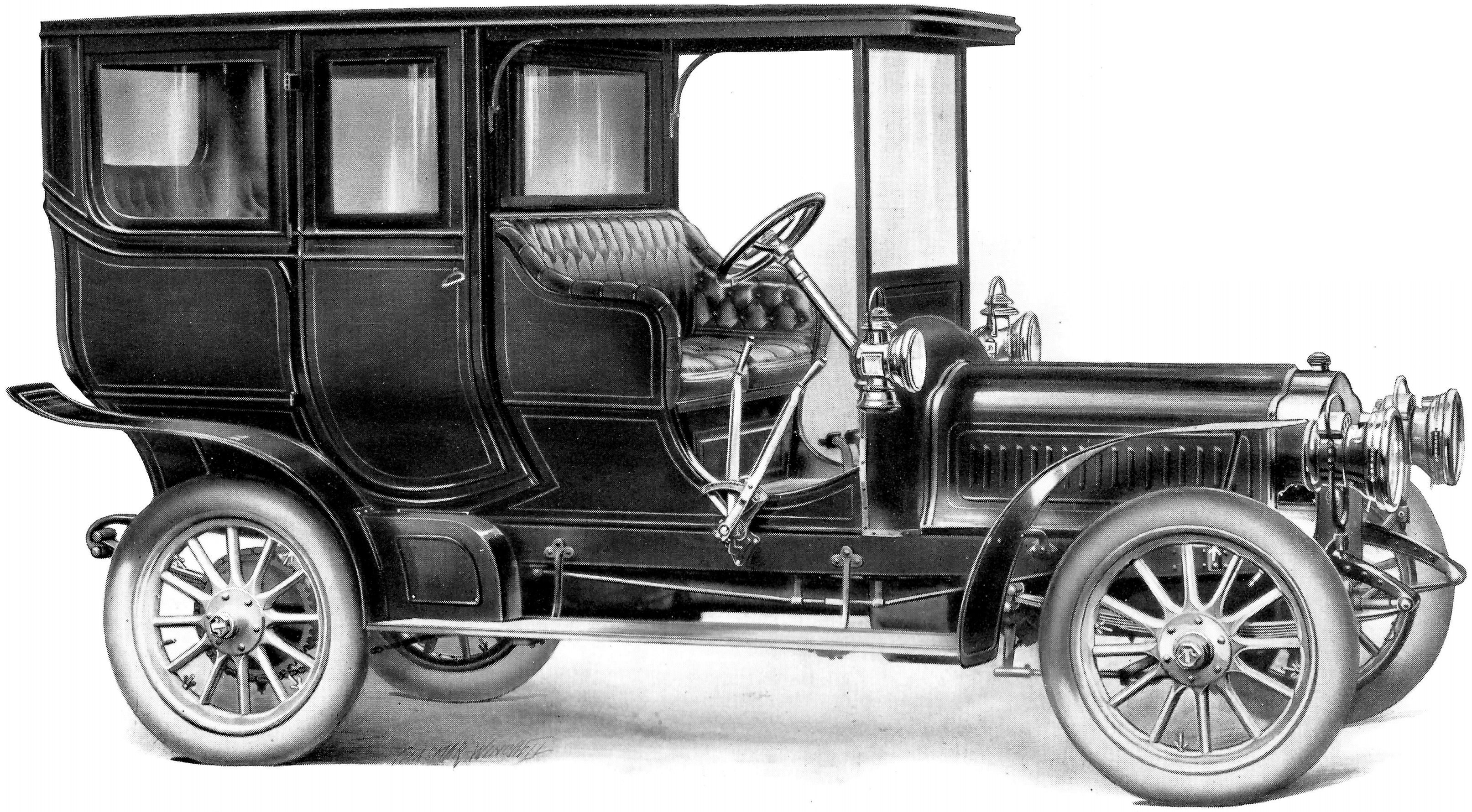
Last year we constructed a large number of 50 horse-power cars, which gives us the benefit of a most extended experience and has enabled us to eliminate any and all possible structural weakness.

High Price does not Necessarily Indicate High Grade

Price does not make a car either good or bad—any more than a strong printed guarantee will make a car stand up. In fact the most expensive item to the manufacturer who protects his reputation is poor material and workmanship. It costs him in addition to the great expense of gaining lost prestige much more than the initial cost to replace a defective article. The total difference in cost between the most ordinary material which might be used and the very best material is but nominal, and though the cost of working to a close limit of gauge is comparatively much greater, the difference can be greatly reduced and in many cases actual cost reduced by the economies of a large volume of business; by employing the most modern equipment for quick, accurate and economical production, and by reducing non-productive overhead and selling expenses to the minimum.

50 Horse-power only

We are the largest manufacturers of 50 horse-power cars in the world. We make nothing else. We have one of the finest automobile factories in the world, with a capacity of one thousand 50 horse-power cars per



THE THOMAS, MODEL XXXII, 50 H. P. LIMOUSINE. Price, $4.500 f. o. b. Buffalo

This body also permits the seating of two in front and five in the rear compartment, and also carries two revolving seats which are both collapsible and detachable, and may be stored under the rear seat.

The car is equipped with speaking tubes, electric lights, toilet sets, etc., and is upholstered in leather or broadcloth at the option of the purchaser.

annum, and manufacture this large output as cheaply as small manufacturers make lighter powered cars.

We make all of our metal parts and practically every part except accessories, completely eliminating the middle men. With nominal non-productive expense we are able to produce a chassis which, if built in small quantities or by antiquated methods, would probably be the most expensive.

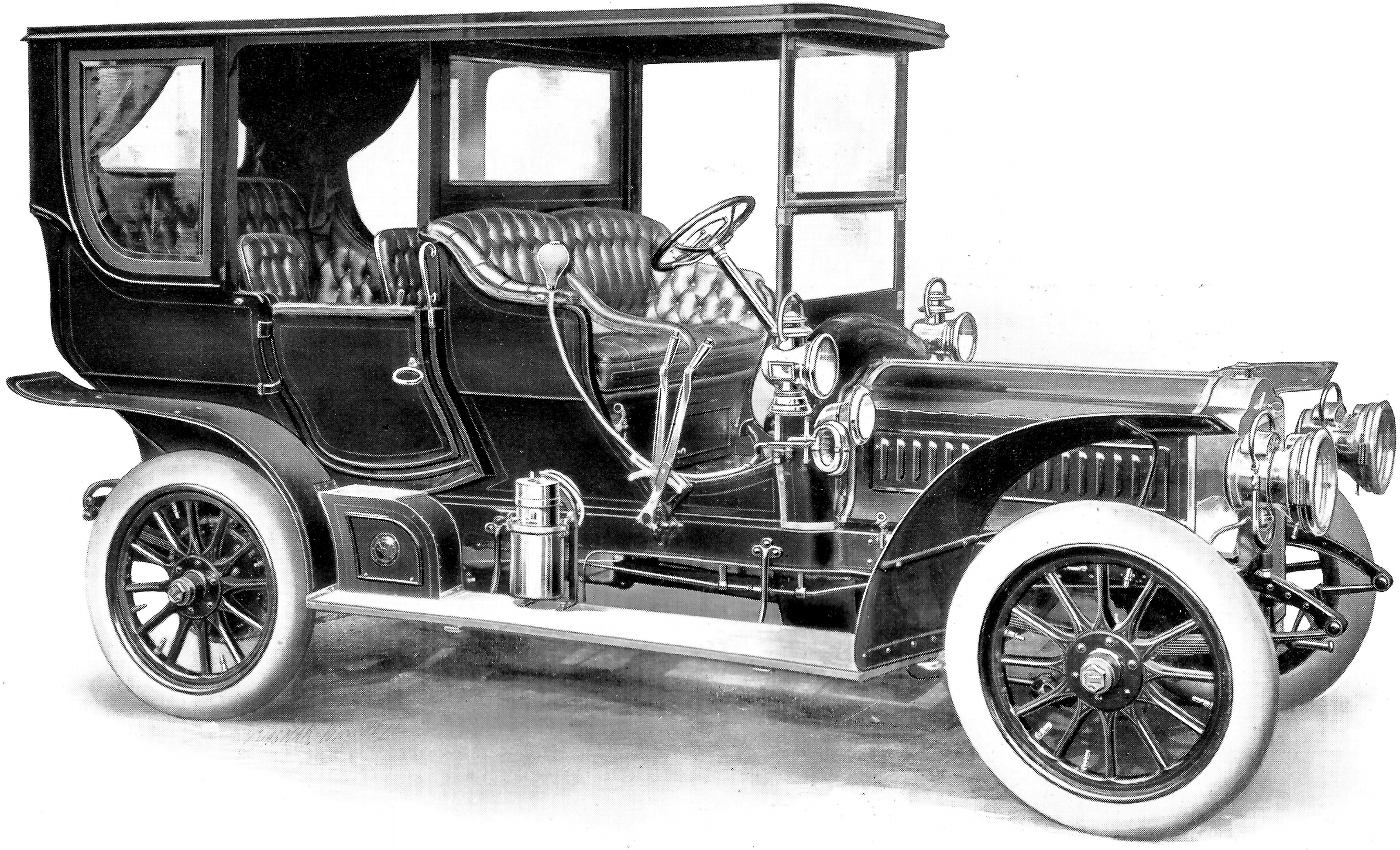
Two years ago we correctly anticipated the enormous demand for high powered cars, and alone took advantage of the great opportunity offered, and centered our entire energies on the construction of cars of this class. These are some of the reasons why we have been enabled to equal in quality at a much lower price those manufacturers building a limited quantity—some of the reasons in fact why the 50 horse-power Thomas sells for $3,500, with full lamp equipment, f. o. b. Buffalo, when competitors charge from $1,500 to $5,000 more.

(Signed) E. R. Thomas Motor Company,

Member Association Licensed Automobile Manufacturers,

E. R. Thomas, President.

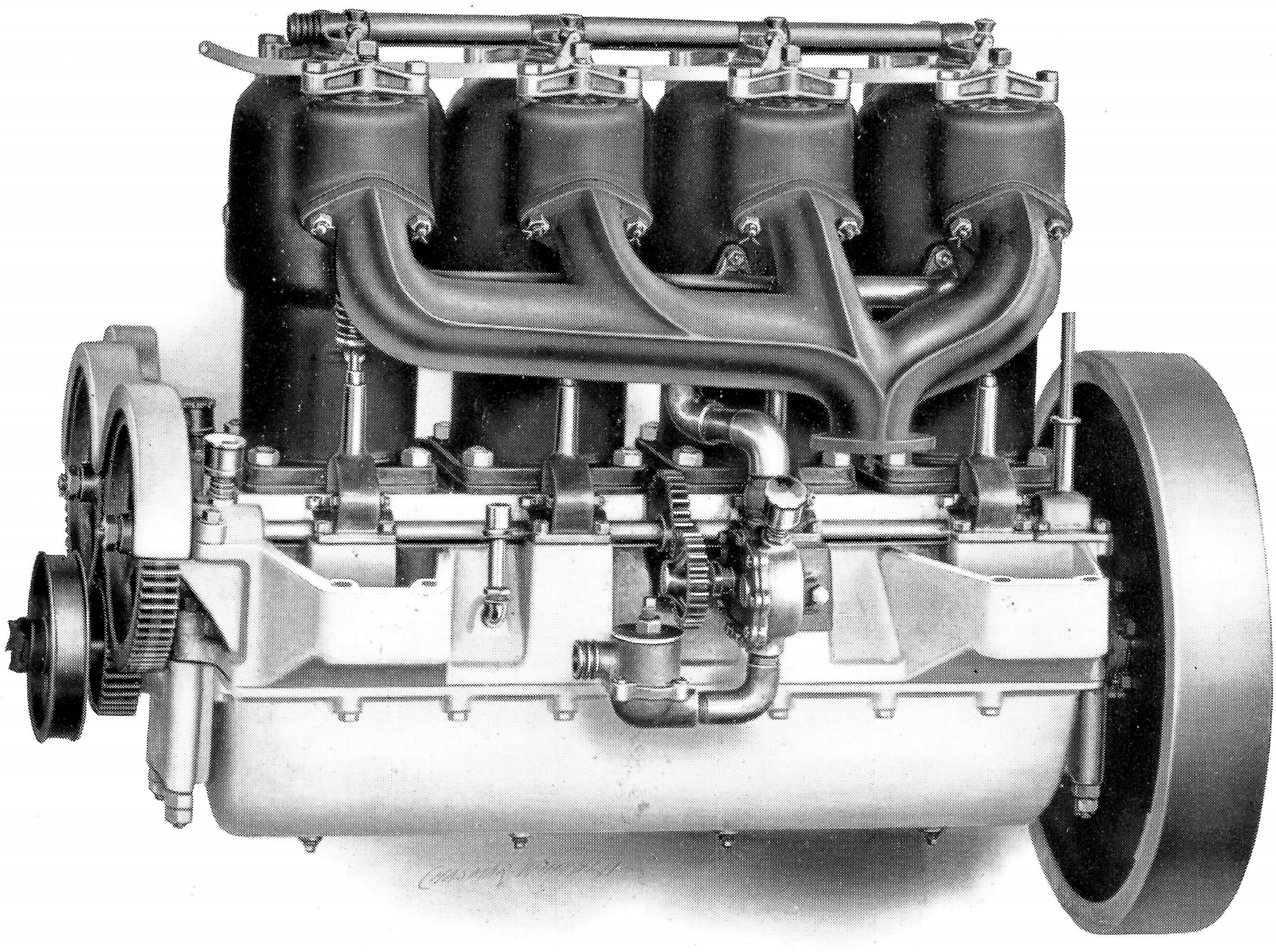
Our Complete Car in 180 Minutes



THE THOMAS, MODEL XXXIV, DEMI-LIMOUSINE. Price, $4,000 f. o. b. Buffalo

This body permits the seating of two persons in the front and five in the rear compartment, which contains two comfortable revolving seats, which are both collapsible and detachable, and may be stored under the rear seat. The car combines the features of the closed and open cars and is equipped with speaking tubes, electric lights, toilet sets, etc., and is upholstered in leather or broadcloth, at the option of the purchaser.

The Thomas, Model XXXI



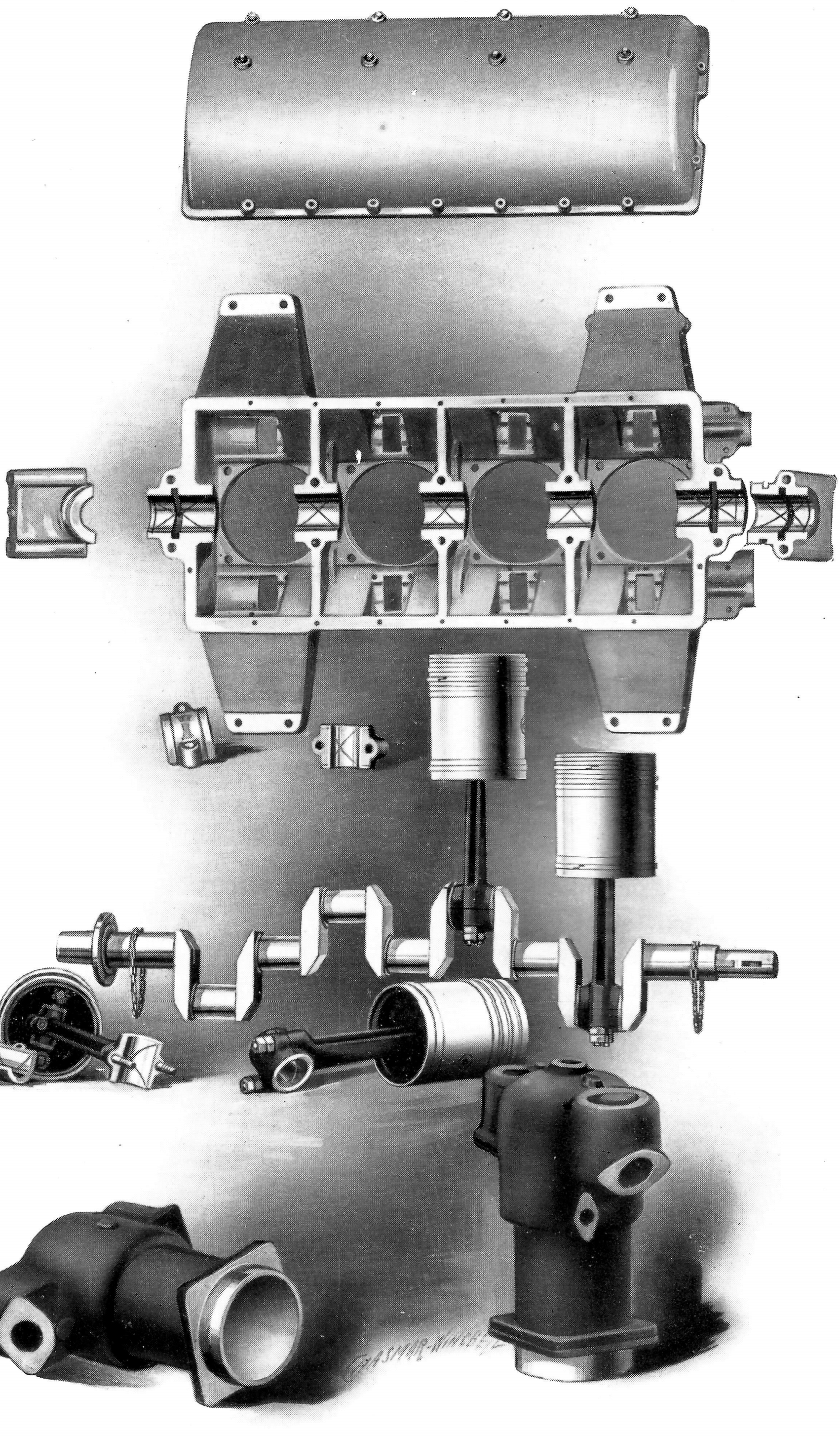
MOTOR

The Thomas motor is of 50 horse-power and has four separate vertical cylinders with 5½-inch bore and 5½-inch stroke. The water jackets are cast integral with the cylinders. Both the inlet and exhaust valves are mechanically operated, are interchangeable, and are on opposite sides of the motor. The cams are housed individually, in this way doing away with the necessity of removing the entire crank case or a large part of it when they are examined. The valve chambers are large and the valves are made easily accessible by the loosening of a swinging yoke. Both the pistons and the five rings with which each one is fitted are accurately ground. The crank-shaft is forged from nickel-steel and is flanged and tapped for the fly-wheel, and fitted with five large bearings. The crank-shaft is ground to a finish all over. The wrist-pin and crank-

Four Separate Cylinders with Integrally Cast Water Jackets

Ground Pistons and Rings

Five Bearings on the Crank-shaft



Motor Parts

Note the five extra large crank-shaft bearings and chain oilers on shaft ends. Other cars usually have only three bearings and no chain oilers. Also note double bolted extra heavy aluminum castings.

pin bearings are lubricated both from the inside and the outside. The two outside bearings of the crank-shaft are fitted with chain oilers and oil pits large enough to provide lubrication for 1,000 miles of running. The bottom of the crank case is divided into four compartments, insuring a supply of oil regardless of the grade over which the car runs. Two filler openings are provided for applying oil direct to the crank case and two try-cocks are so situated on the case that the proper level of the oil may be ascertained readily. The bottom of the crank case may be removed without disturbing the bearings. The connecting rods are nickel steel drop forgings, bushed with bronze at the wrist pin ends. All the other bearings are of special white metal. The aluminum engine base is attached directly to the main frame which gives the maximum of rigidity coupled with the minimum of weight, due to the fact that the cumbersome sub-frame is done away with. A metal pan, attached directly to the frame and easily removable, effectually protects the motor, clutch and all working parts from dirt.

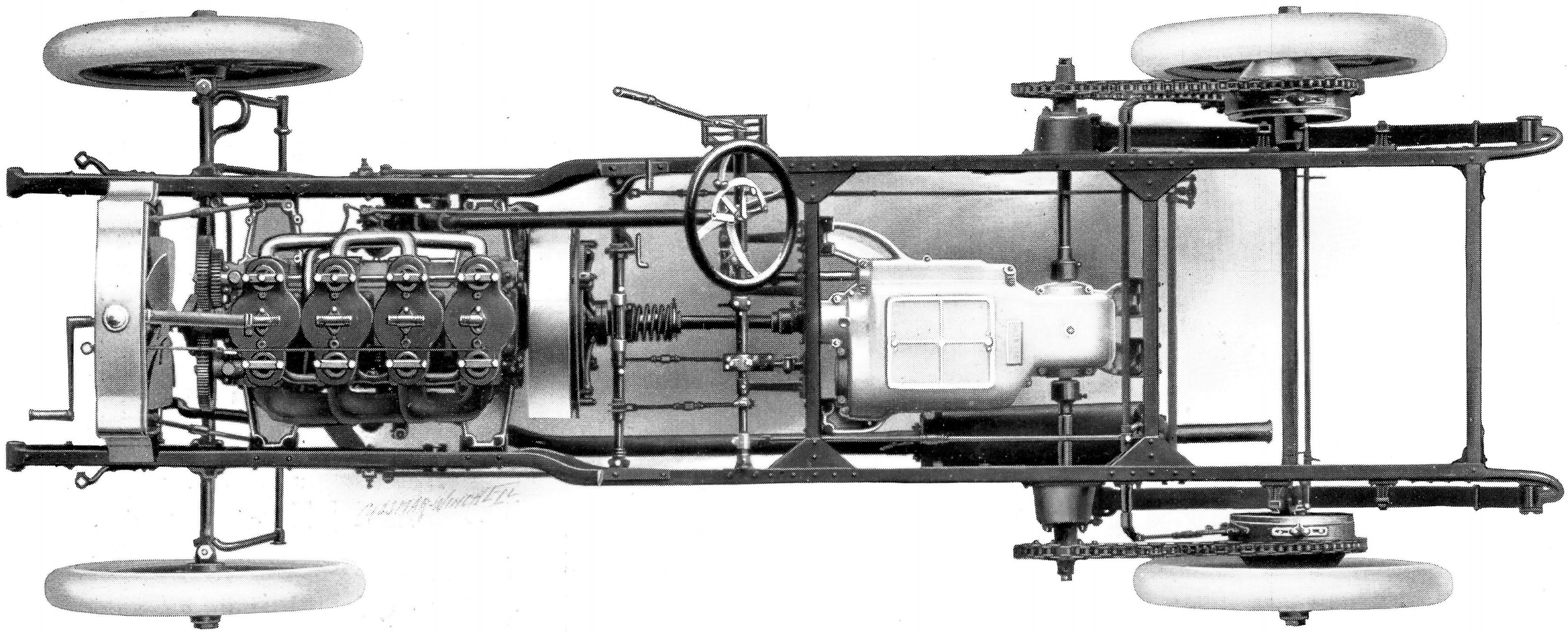
Lubrication for 1,000 Miles

No Sub-frame

CARBURETOR

The carburetor is of the automatic, variable type and has several decided improvements. The control is most sensitive, permitting a variation of speed of from six to sixty miles an hour on the direct drive. The throttle lever is located on top of the steering wheel as is the spark control lever. The segment does not move with the wheel. The carburetor is also connected with the clutch pedal by which means the engine is throttled whenever the foot or emergency brakes are applied. This does away with the necessity for a trappy and cumbersome governor. Provision is also made for using either hot or cold air as conditions require.

Six to Sixty Miles an Hour on Direct Drive



CHASSIS OF THE THOMAS 50 H. P. CAR

The Thomas, Model XXXI

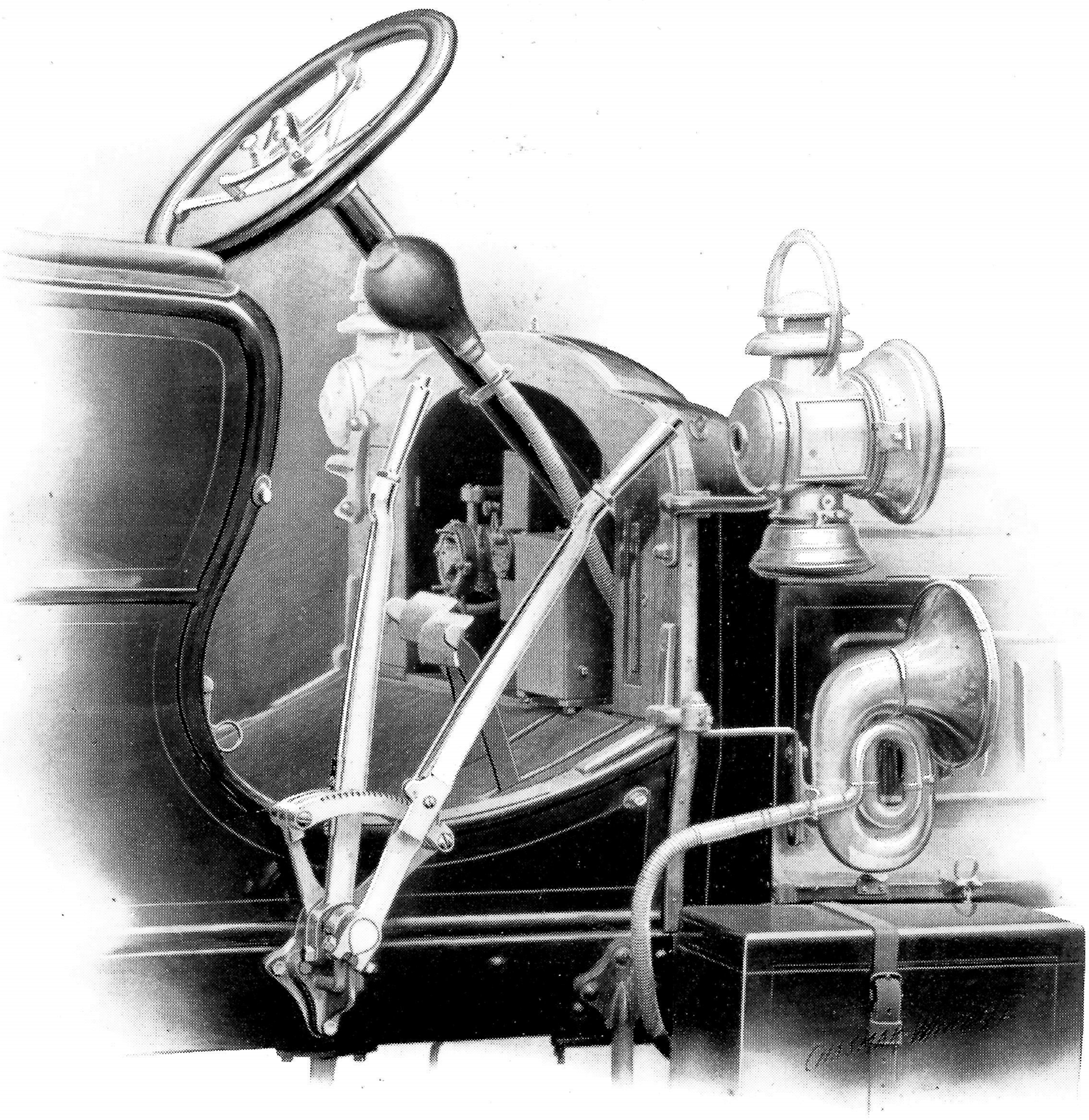
OILING SYSTEM

Mechanical Oiling Device

A mechanical oiler, gear driven from the cam shaft, is located on the dash. This oiler has six sight feeds, four of which oil the pistons direct, the other two leading to the crank case. The oiler is augmented by the splash system mentioned in connection with the motor. This oiler has no automatic valves which can get out of order and is, therefore, not only economical but effective in cold weather.

IGNITION

Is by the jump spark system operating with a single coil from storage batteries carried on the right hand running board. The



The "Pilot House" of the Thomas Flyer

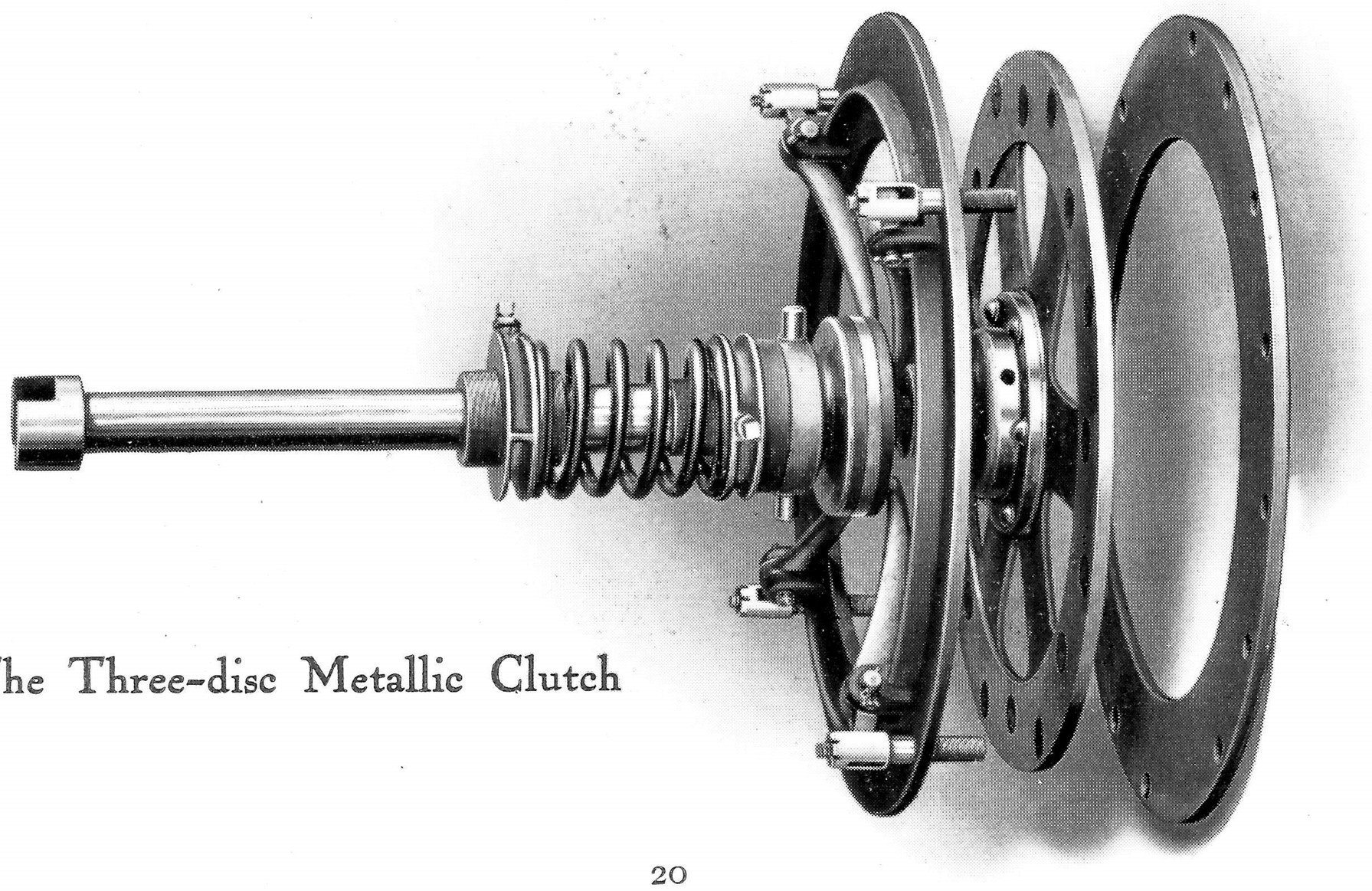
The Single Coil

single coil has met with marked success and eliminates the almost constant trouble with adjustments when four coils are used. A great improvement has been made in the combined commutator and distributor which is located on the dash. All unsightly wires have been removed, and the working parts of the commutator and distributor may be taken out by the removal of two screws and the disconnection of one wire. Owing to the presence of a small slab on one side of the commutator disc, it is impossible to replace the commutator in a wrong position. Provision is made on the engine base for the attachment of any standard magneto, which will be furnished at additional cost.

CLUTCH

The Thomas Clutch

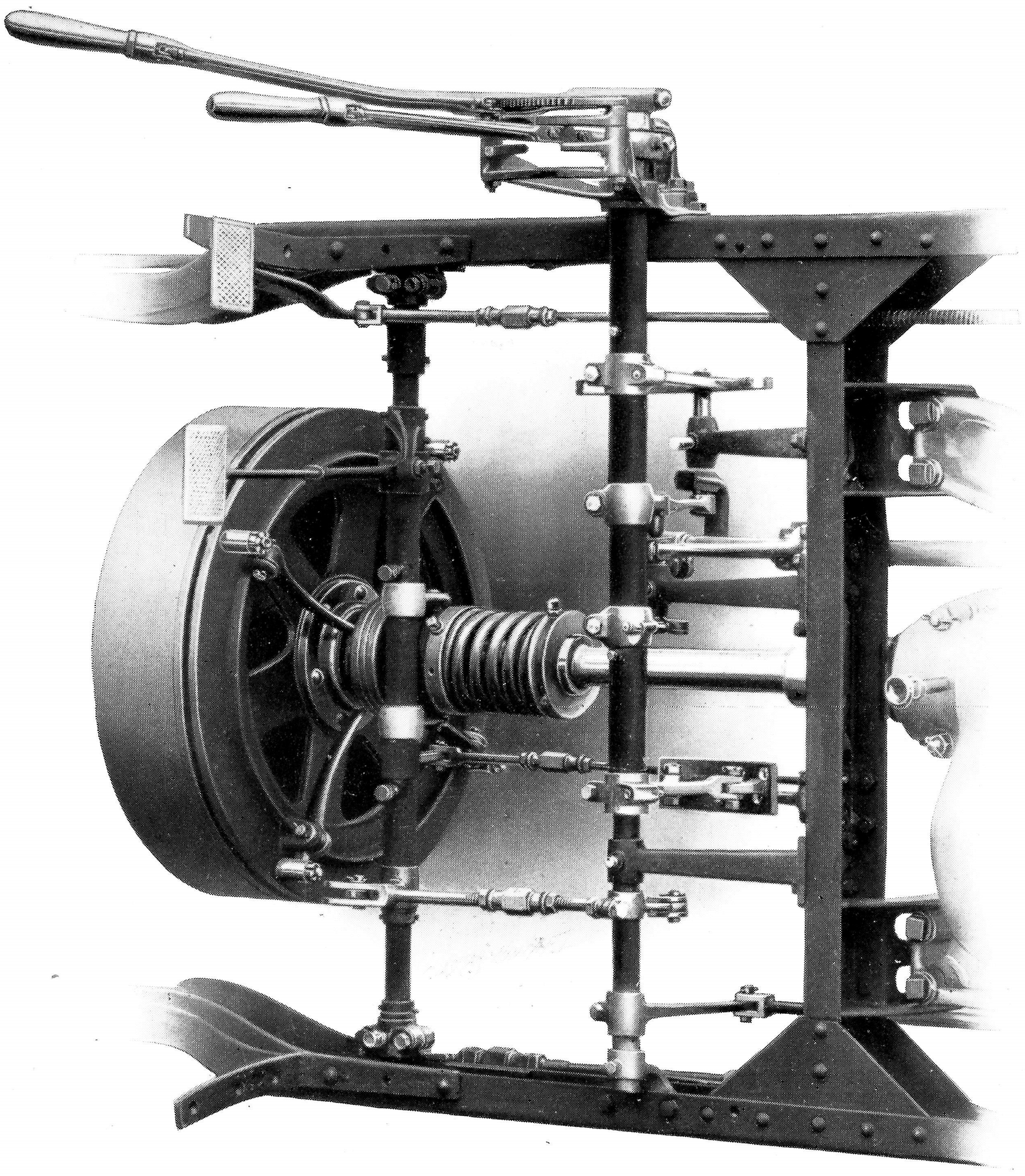
The motor is provided with a 22-inch flywheel, weighing 120 pounds. To the rear side of this is secured the driving clutch, which is a three-plate, metal-to-metal device. The center plate is a spoked manganese bronze disc, packed with yielding cushions, which is firmly held, while power is being transmitted, by the outer plates which are of grey iron.



The Three-disc Metallic Clutch

The contact is maintained by a powerful spring. The action of the clutch pedal compresses this spring, thus releasing the pressure of the outer plates on the center one. This disc clutch is our own, and repeated and severe tests prove it to be powerful, effective and absolute in its action. A point of especial merit in this clutch is that it prevents "chattering" when the car is started, all the jerk and shock being taken up by the cushions in the manganese bronze driving disc.

No "Chattering" when the Car is Started



Clutch in Operating Position. Foot Pedals, Levers and Anti-Gear Stripping Device

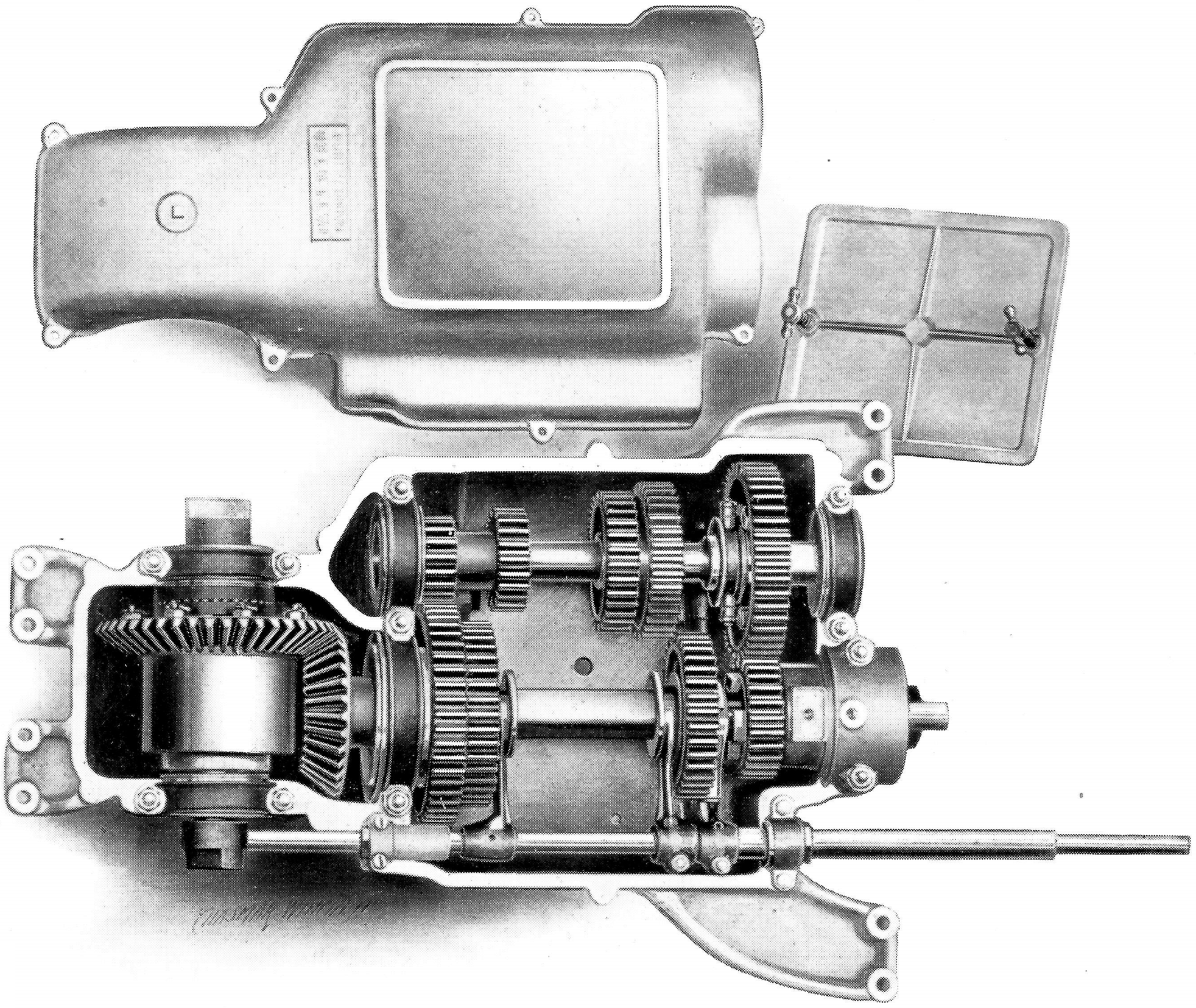
Gear-driven Pump

COOLING

The cooling of the motor is accomplished by a gear-driven rotary pump with an increased capacity, working in conjunction with a honeycomb radiator of ample size and a fan driven by an endless belt. This belt is, by a mechanical arrangement, adjustable for stretch.

TRANSMISSION

The sliding gear, selective type of transmission is undoubtedly the most costly now made but it is also the best. It obviates passing successively through the different speeds in changing gear, and it provides four forward speeds and a reverse with direct drive on the high or fourth speed. We believe we have

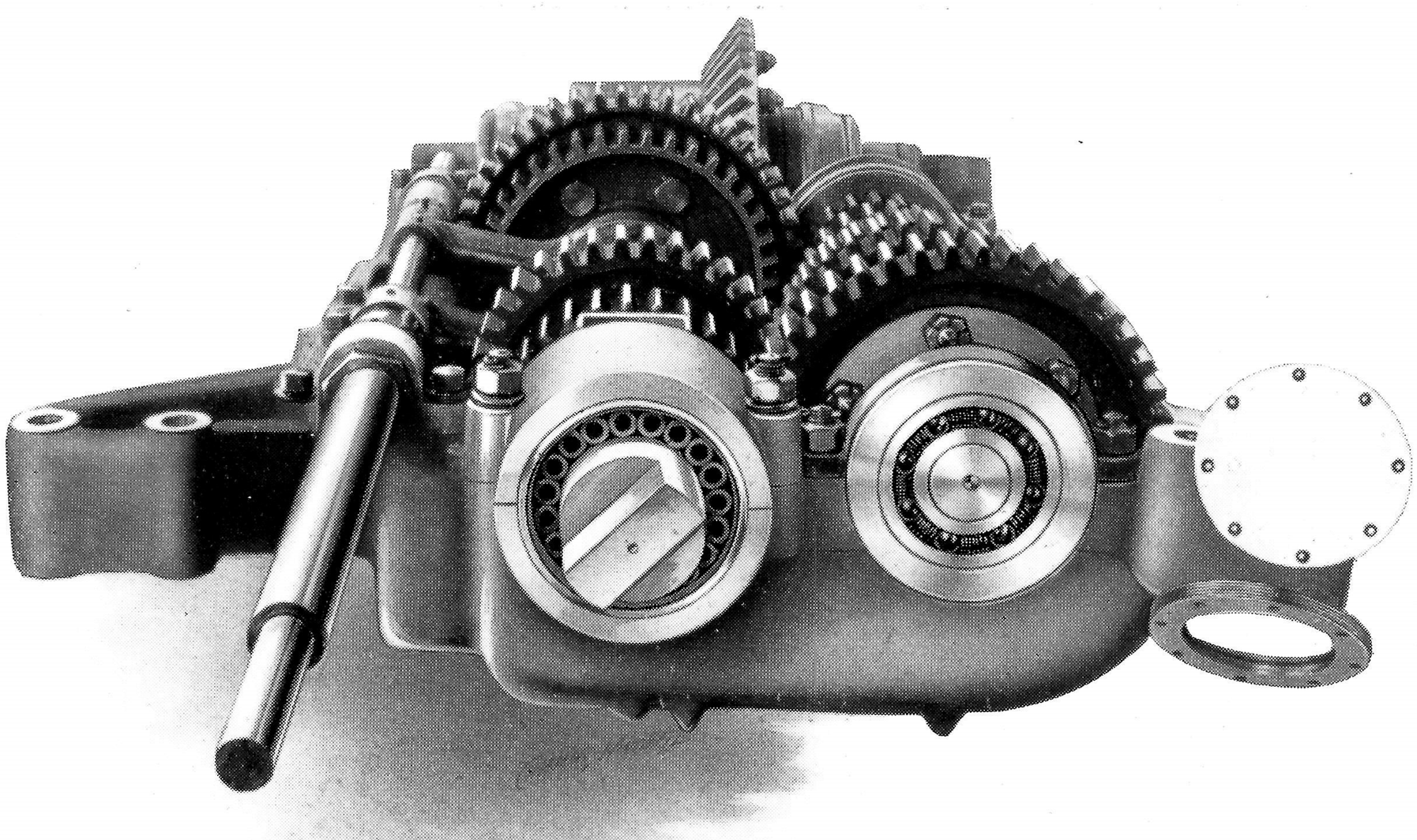


A Comprehensive Illustration of the Transmission Gears

The Thomas, Model XXXI

Automatic Anti-gear Stripping Device

improved upon the foreign practise in achieving this desired result, and confidently challenge comparison with any other transmission in any price car. The gears are forged from chrome nickel-steel, of extra wide face and large diameter, and the drive is direct on the fourth speed without a gear in mesh. All gears are interlocked with the clutch, the clutch being thrown out before a change can be made. This action is automatic and prevents any possible gear stripping. The gears are of large face, their width having been increased to 1 3/8 inches for the large gears and 1 1/4 inches for the smaller. This is more than above the recognized factor of safety, yet all the gears are detachable, so should any break occur the part can be replaced easily and quickly. The shafts are of large diameter. The front end of the main shaft is fitted with a roller bearing, the rear end of the main shaft, the front and rear ends of the auxiliary shaft and the differential shafts with Hess-Bright ball bearings, and the large and small bevel gears with ball thrust bearings. This makes



Forward End of Transmission, showing Hess-Bright and Roller Bearings

Eight Anti-Friction Bearings

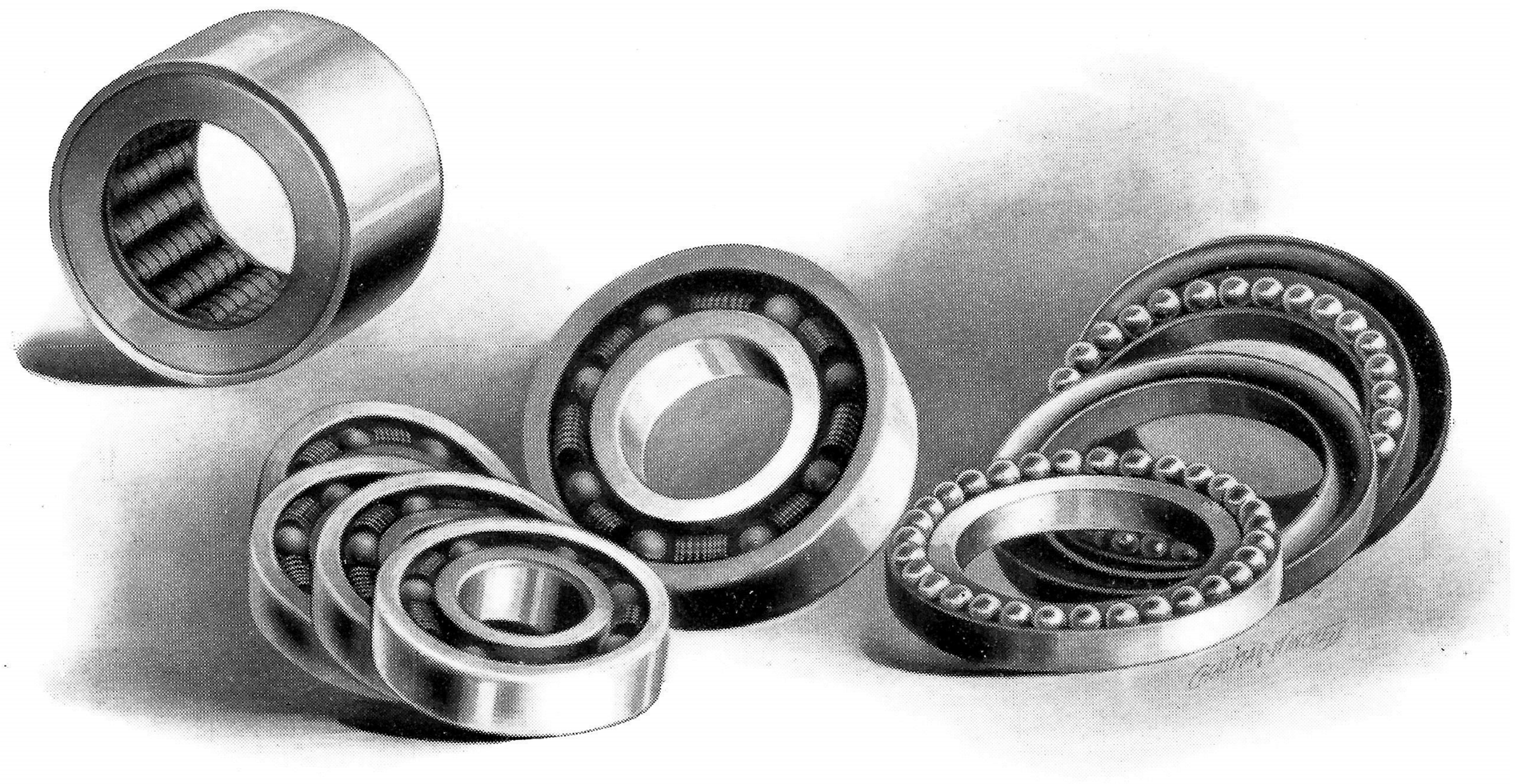
a total of eight anti-friction bearings in all in the transmission—five Hess-Bright ball bearings, two ball thrust bearings and one roller. This unusually large number of high quality bearings has attracted so much comment from experts that particular reference is made to the fact here, as it is an excellent illustration of the manner in which we have exceeded all precedent in our desire to make this car the best at every point. In this line and in connection with this talk on the transmission case it can be stated that the differential has been improved by the addition of another set of pinions, thus increasing its strength.

CHAIN DRIVE VS. SHAFT DRIVE

The Discarding of the "Shaft Drive"

Notwithstanding the fact that the leading automobile makers both in America and abroad are convinced that the chain drive has many advantages over the shaft system, there is still some belief that the shaft is the "direct" principle.

As a matter of fact the shaft drive is not entitled to be called "direct," and its only



The Eight Anti-friction Bearings in the Transmission

talking points are neatness and the absence of the purring of the chains. Against this there are so many obvious advantages in favor of the chain drive that there can be no argument for the other plan worth considering. The shaft drive requires a divided rear axle system, which is so ponderous from the weight of the necessary castings that it is already overburdened when the passengers take their places in the car.

No Divided Rear Axle

The bevel gearing of the shaft drive means the tortuous transmission of power through universal couplings at any angle from eight to twelve degrees, and there is no efficient way of obviating the friction due to this angular pitch without incurring greater evils, such as may arise from any attempt to superimpose the transmission itself upon the already overweighted axle.

With the chain drive the solid and unbroken rear axle safely meets the strain and stress of the roughest American roads, and obviates any loss of power from the binding of such parts as are essential to the shaft drive system.

Vertical motion within the range of the springs does not affect the chain system of power transmission, while it does result in direct loss of power when the so-called "direct" shaft drive system is used.

It will be seen then that the immense castings of the bevel gear system, together with the trussing needed to keep the divided rear axle from sagging and the indirect friction-creating method of transmitting the power to the wheels, all constitute serious indictments against the shaft drive which have no counterpart in the chain drive.

Another feature in favor of the chain drive is that in the event of an accident that is positively disabling to a car, a chain-driven one can be towed, while a shaft-driven car

A Chain-driven Car can be Towed

Ample Power or Not Enough—Which?

must be hoisted bodily on a truck and carted away for repairs.

The crowning reason of all, if you wish a high-powered, really up-to-date machine, why you dare not utilize the shaft-drive is that, because of its inelastic application of power and its necessary structural weakness a high-power motor cannot be used. A 50 horse-power engine would soon rock and tear the best shaft-driven car to pieces.

The shaft drive has been abandoned with reluctance but it has been tried and found wanting.

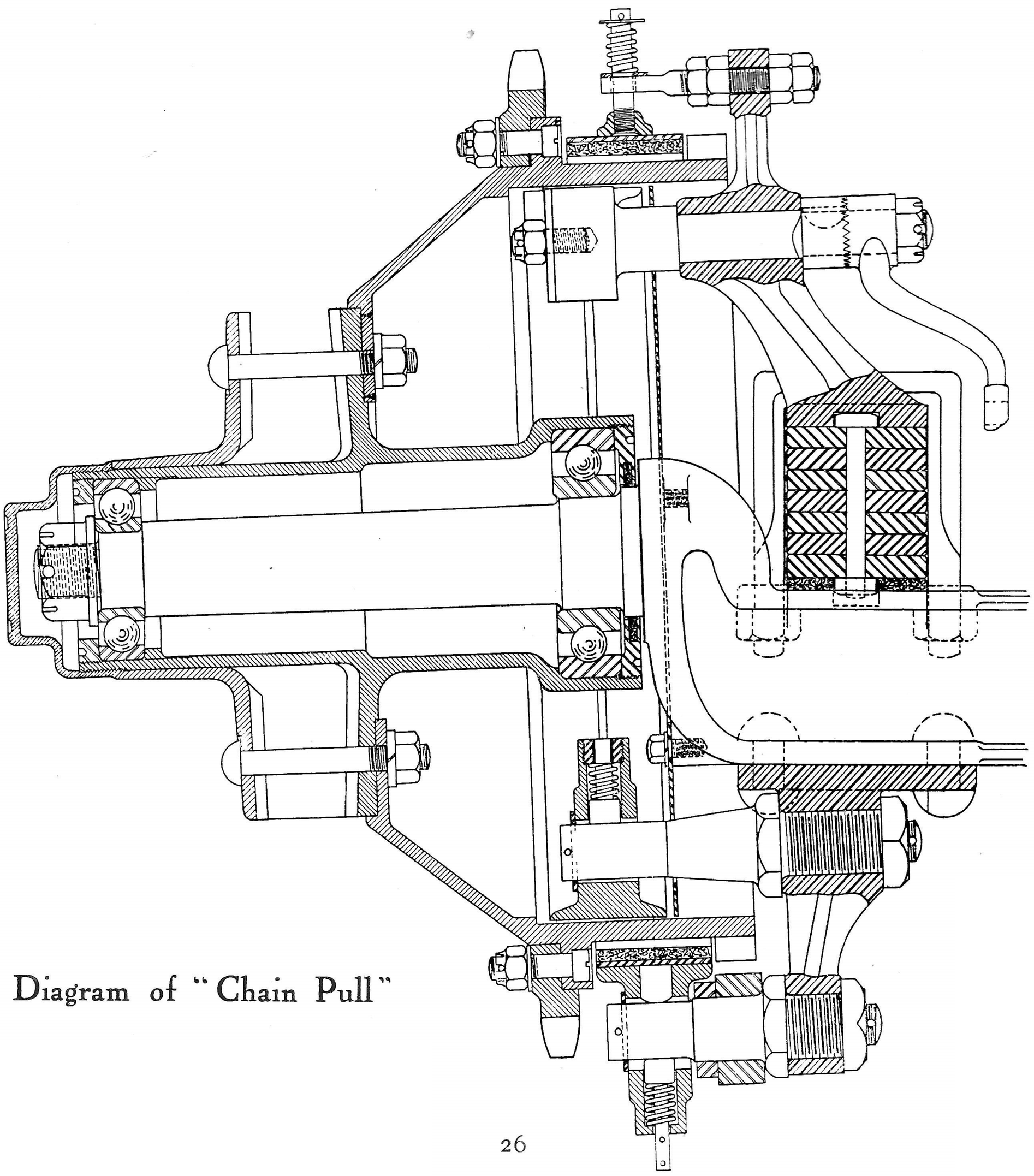


Diagram of "Chain Pull"

The Thomas, Model XXXI

BEARINGS

The Necessity of the Best Bearings and in Sufficient Quantity

There are twenty anti-friction bearings of the most costly type in the Thomas Flyer. We have adopted Hess-Bright ball bearings because our own tests and their service in the highest price foreign cars have shown them to be the best made. They are also, it may be stated, the most expensive now in use. There are eight Hess-Bright bearings on the wheels, two on the sprockets and five on the transmission, in addition to two ball thrust bearings on the bevel gears, two in the steering apparatus, and one roller bearing on the main transmission shaft. We do not know of any other car that includes so many expensive positive anti-friction and lubricating devices. We believe this to be of paramount importance and we urgently request that in all comparisons of the Thomas with other cars especial consideration be given to what this car offers and what others do not.

THE FRAME

The Strength of the Chassis

Is of cold pressed steel, narrowed in front. It is reinforced at the bend by channel plates of the same material and thickness and is also trussed. There are four pressed steel cross frame members, one at the rear, two near the middle of the frame and one just in the rear of the radiator. The engine base is bolted directly to the narrowed part of the frame and the transmission case to the cross members by double the usual number of bolts employed, giving the entire chassis a greatly increased amount of strength and making it practically one mass from end to end. The narrowing of the front portion of the frame and the consequent elimination of the weighty sub-frame has produced a number of marked advantages, among them being increased

strength and rigidity with decreased weight, the ability to turn the car around within a much smaller radius, and the lessening of the tendency to skid, owing to the lower center of gravity and the more even balance of the entire machine.

AXLES

Strength where it is Most Needed

Both the front and rear axles are of the I-beam type and are drop forged with the spring seats integral, thus doing away with brazed spring seats which always show a tendency to crystalize and break. These axles are of a quality of steel specially treated to withstand the hardest shocks and strains of heavy road work. The rear axle is one piece from end to end. The steering mechanism in conjunction with the front axle is particularly strong. The knuckles and pivot levers are forged from nickel steel. The pivot levers are machined to a long taper with a good fillet and are attached to the steering knuckle by inserting them in holes ground to a like taper and held in place by castellated nuts secured by spring cotters. The steering knuckles are attached to the I-beam yokes by hardened and ground pins. All wearing parts are fitted with hardened steel bushings.



Front and Rear Axles

The Thomas, Model XXXI

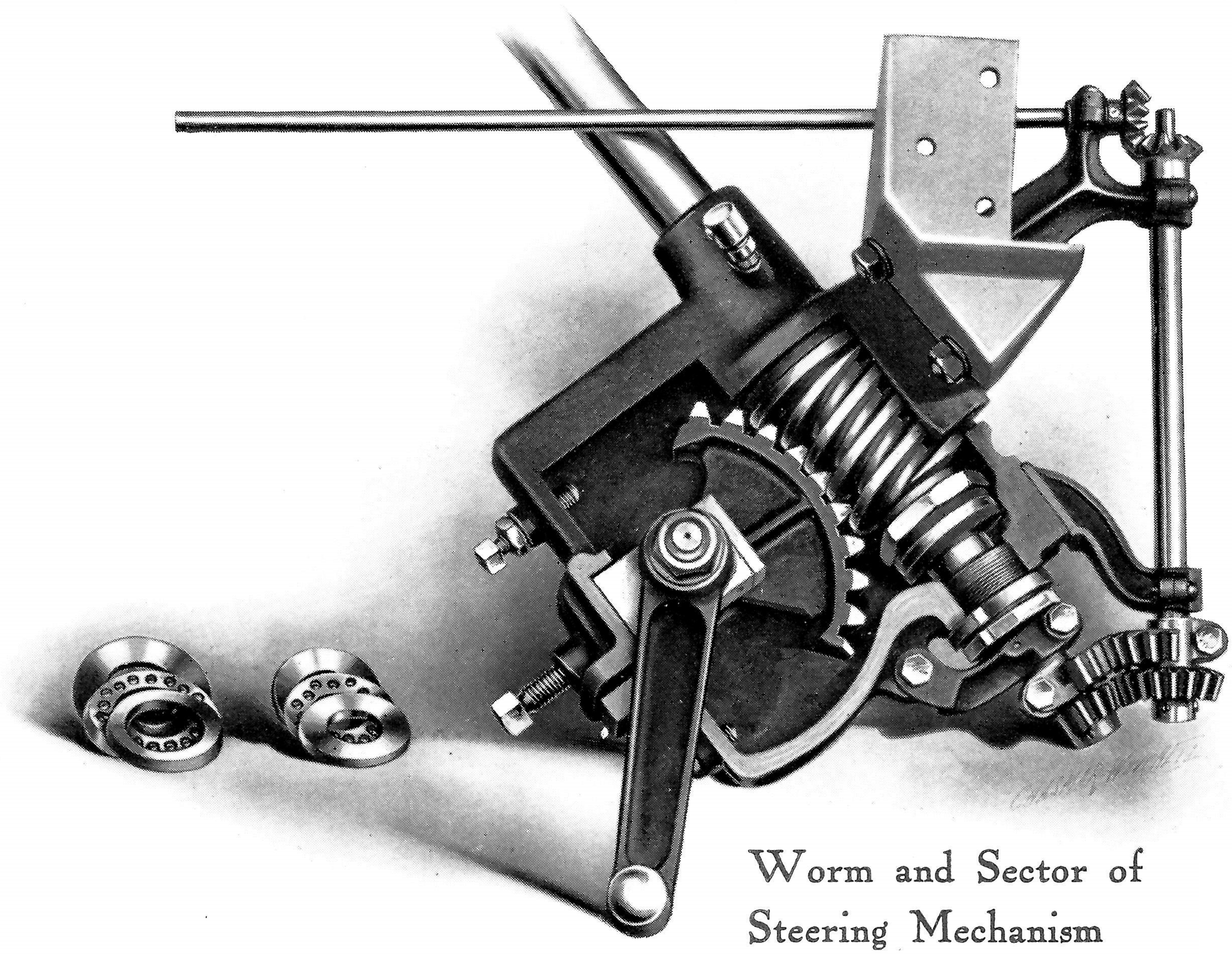
STEERING GEAR

All Working Parts Drop Forged

Every working part of the steering gear except the post and wheel is drop forged. The worm and sector and the post, which latter is of large diameter and heavy gauge, are improved, while the feature of ready accessibility for means of adjustment and examination is retained. Two ball thrust bearings are provided to do away with friction. In order that all danger from striking obstacles in the road may be done away with the cross steering rod has been placed in the rear of the front axle. The throttle and spark levers work through the steering post.

BRAKES

With a thorough realization of every factor included in the brakes, all parts of both pairs from the points of operation to the brakes are drop forged. One pair of brakes—the outside



Worm and Sector of Steering Mechanism

Automatic Throttle

ones—act upon drums attached to the rear wheels and are applied by a foot lever. The emergency brakes, two in number, act upon the interior surface of the drums referred to. These have an effective expanding cam with shoes of bronze.

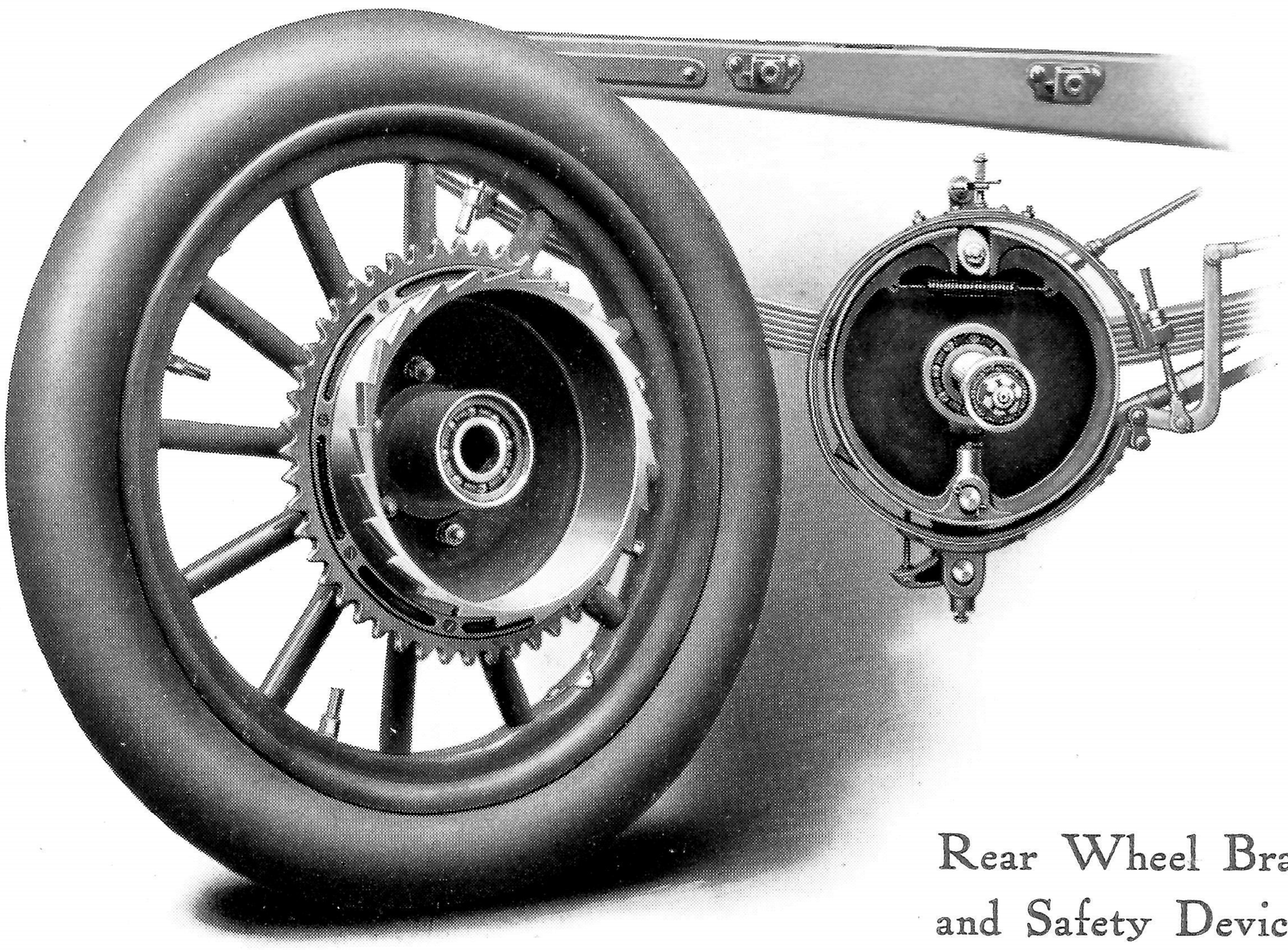
A movement of the emergency lever does three things: it withdraws the clutch, expands the interior brakes and sets the outside brakes.

In order to show at this point how complete a train of events is set in motion, it should be further stated that the withdrawal of the clutch automatically throttles the engine.

The foot brake alone exerts a powerful force. A car containing seven people was held by it without exertion, on an actual 27 per cent. gradient. In addition to these mechanical features, the Thomas brakes have nearly double the braking surface usually employed.

SAFETY DEVICE

This was the first factory to equip a car



Rear Wheel Brake and Safety Device

with a positive backstop safety device, and its value has been shown time and again. It positively prevents the car from backing down hill in the event of the motor stopping from any cause. It can be used as a brake when stopping on a hill, and this one feature makes the Thomas especially desirable for use in a hilly country. The device has proven a life saver on several occasions, and experts agree that it is the most important and necessary improvement that has been made in years. Naturally attempts have been made to imitate this principle, but no other safety device is so reliable. It consists of a rachet and pawl on the rear hubs, the pawl being thrown into contact with the rachet by the action of a lever located just under the driver's seat. Another advantage of this safety device is that when a car is stopped on a hill not a brake need be applied, and the car may, as a consequence, be started on the up grade again without the engine first overcoming the brakes or the brakes being released and a chance taken on the car backing down hill before the clutch can be applied.

The Thread by which a Life may hang

Wheels and Tires

The wheels are of second growth hickory and in the new model have larger spokes and extra large flanges.

An exclusive Thomas feature appears in the chain pull being between two Hess-Bright ball bearings, equally distributing the strain and lessening the friction by pulling forward on both.

A Distinctive Thomas Feature

The tires are 34 by 4½ inches on the touring car and the demi-limousine, while for the limousine and landaulet the front tires are 34 by 4½ inches, and the rear tires 34 by 5 inches. Tires may be of any standard make.

The Thomas, Model XXXI

Comfort even on Bad Roads

WHEEL BASE AND TREAD

The Thomas has a wheel base of 118 inches and a tread of 56 inches. The long wheel base insures comfortable riding over roads that would be almost out of the question for the ordinary touring car.

SPRINGS

The frame is supported at both ends by two sets of semi-elliptical springs, heavy enough to stand any conditions of travel. These springs are 52 inches in length and 2¼ inches wide with a 9-inch opening.

THE THOMAS DUSTLESS BODY

A Patented Body

A rather unusual subject for a patent is the car body of the Thomas. This is built on lines that are not only artistic but so scientifically devised that the air currents keep the tonneau free from dust. The car's lines admit more luxurious upholstering than is permitted by the ordinary straight forms. The body sits lower on the frame than that of last year's model, and the top of the back seat is a little lower, thus eliminating any appearance of heaviness. The lower back also permits an unobstructed view to the rear of the car without standing up. The square corner effect is replaced by easy, graceful curves. The rear seat is wider, the door openings are broader and two removable, revolving seats have been added, so that five people or seven may be comfortably seated, all facing forward.

We believe that this body is the most beautiful ever constructed for an automobile, and the general design and finish is a veritable work of art.

The aluminum dash, with its mahogany lockers, conforms to the curves of the hood. Natural wood is used in the interior finish.

The Hood

The hood is hung on a double hinged rod, extending from the dash to the radiator and opens on both sides. It is fastened to the frame by four spring locks.

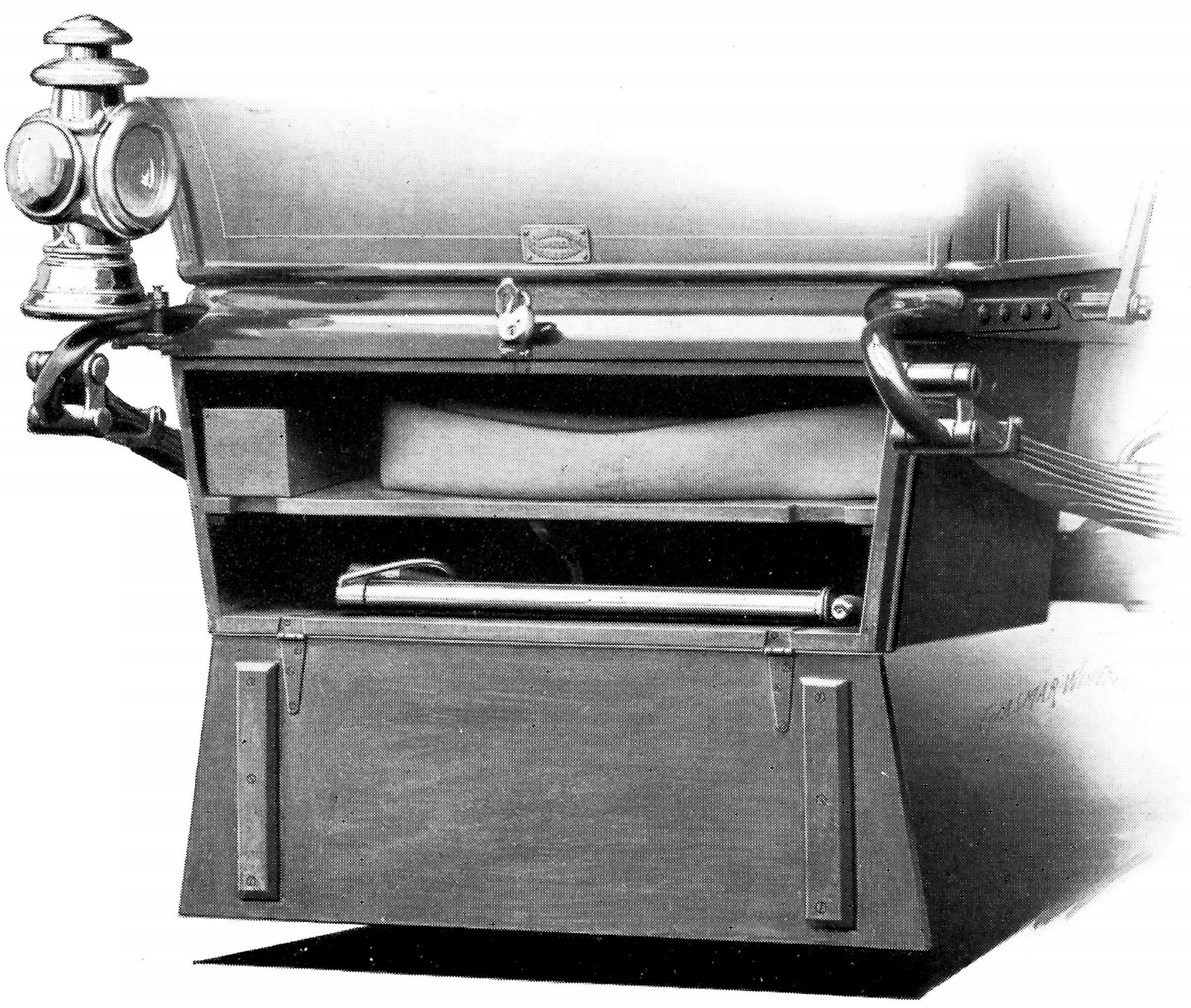
Minor Details which Mean a Great Deal

Mud Guards

The mud guards are of the approved type, with patent leather flaps attached to the front guards, effectually protecting the hood and the occupants of the front seat. All the guards are readily detached. The running boards are continuous from the front to the rear fenders.

Luggage Compartment

Room for two large suit cases is provided in the rear of the front seat. A roomy locker



Locker under the Tonneau

underneath the tonneau is divided into sections and affords ample room for storing extra inner tubes, a pump and such other tools and sundries as are needed for extensive touring.

For Touring

The space under the tonneau seat will hold as much apparel as the average steamer trunk and a special trunk may be fitted to the space by any trunk maker.

The entire body is of metal and will not come apart or check under strains.

FINISH

Cars are finished in French grey with black stripes, permanent blue with light blue stripes, royal green with light green stripes, and Victoria lake with English vermilion stripes.

GASOLINE SUPPLY

The gasoline tank contains twenty gallons, in which is included an emergency supply of two gallons, which does not become available until the regular supply is exhausted. The tank is located above the level of the engine and under the front seat, and, therefore, does not depend in any way on a forced feed.

EQUIPMENT

Every car is equipped with two headlights and a generator, two oil side lamps for the dash, one oil rear light, a French horn with a long tube, a set of tools and a tire repair outfit.

FACILITIES

Our Factory Additions

We have just completed an additional factory, designed especially for the manufacture of automobiles. It is said to have no equal for this purpose in the world. The floors, walls and roof are constructed entirely of steel, concrete and glass. We have installed in it

the most modern mechanical equipment man has yet devised and that money can buy.

The new plant has almost trebled our capacity, enabling us to turn out one thousand high-power automobiles every year.

We are now enabled to make every steel part used in the Thomas Flyer, and base our assertions of excellence upon the shop-work performed in our own plant.

Completely Under Our Supervision

Guarantee

Adopted by the National Association of Automobile Manufacturers

We guarantee all goods furnished by us for sixty days following the date of their shipment, based upon the date of invoice covering the goods, this guarantee being limited to the replacement in our factory of all parts giving out under normal service in consequence of defect of material or of workmanship, without other responsibility on our part of any character. If the circumstances do not permit that the work shall be executed in our factory, the said guarantee is limited to the shipment, without charge, of the parts intended to replace those acknowledged to be defective. It is, however, understood that we make no guarantee whatever regarding pneumatic tires or the batteries. We cannot accept any responsibility in connection with any of our motor cars when they have been altered or repaired outside of our factory. Our agents are solely responsible to the purchaser of our goods for all undertakings and guarantees made by them beyond those expressed above.

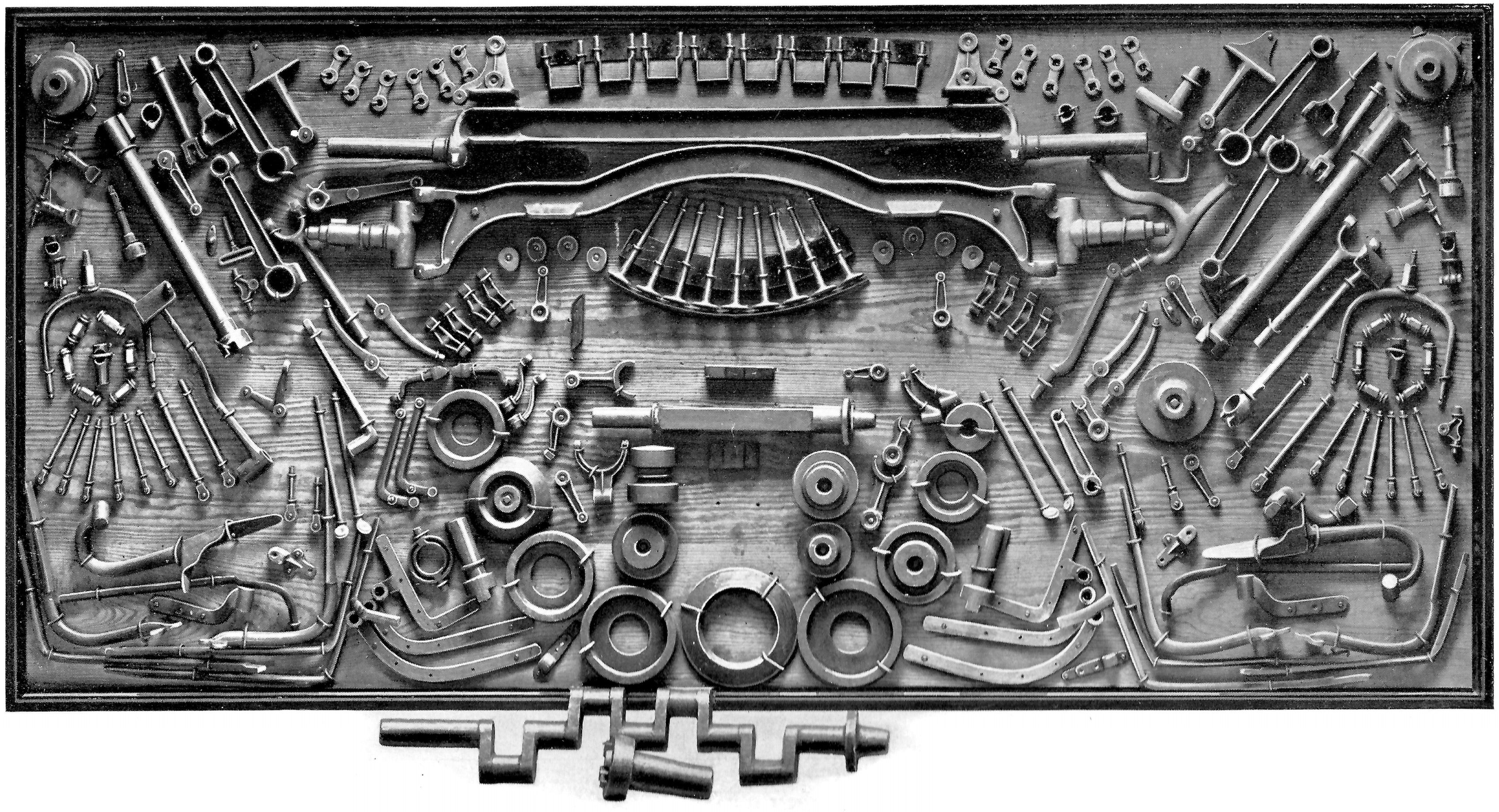
An Interesting Comparison

IN compliment and without reflection, we have selected the leading cars of Germany, France and Italy for the purpose of comparing mechanical details. Please note that in the most important detail of bearings, we use the identical bearings that are used on the Fiat and Mercedes, which we import from the same factory abroad, and which are the most expensive bearings made. In all the other mechanical details the Thomas is absolutely the equal or superior, and positively excels in the safety device, anti-gear stripping device and scientific chain alignment, clearly proving the fact that in the combined features of safety, efficiency and comfort the Thomas is actually the greatest touring car in the world.

	THOMAS	MERCEDES	PANHARD	FIAT
Back stop safety device to prevent a car from backing down hill	Yes	On Differentials	No	No
Motors—four separate (50 horse-power—5½ x 5½)	Yes	Pairs	Yes	Pairs
Mechanically operated valves	Yes	Yes	Yes	Yes
Valves on opposite sides	Yes	Yes	Yes	Yes
2 to 1 gear, outside encased	Yes	No	Yes	No
Equipped for magneto	Yes	Yes	Yes	Yes
Five large motor bearings, most important	Yes	No	Yes	No
Water pump gear encased	Yes	Yes	No	Yes
Oil pump, each tube separate plunger	Yes	Exhaust Pressure	No	No
Oil pump operated by gear	Yes	None	No	No
Oil pump operated by belt, chain or friction	No	None	Belt	Belt
Chain oilers on crank-shaft	Yes	No	No	No
Motor doubly bolted to frame	Yes	Yes	No	Yes
Radiator cellular	Yes	Yes	Fin Tubes	Yes
Three disc metallic non-slip clutch, no fly-wheel motion	Yes	Multiple Disc	Low Power Leather, High Power Steel Discs	Multiple Disc
Leather faced cone clutch	No	No	No	No
Automatic anti-gear stripping device	Yes	No	No	No

An Interesting Comparison—*Continued*

	Thomas	Mercedes	Panhard	Fiat
Transmission case doubly bolted to frame	Yes	No	No	No
Transmission selective type	Yes	Yes	Yes	Yes
Four speeds forward and reverse	Yes	Yes	Yes	Yes
Direct drive on high speed	Yes	No	No	No
Roller bearing on forward end of main transmission shaft	Yes	No	No	No
Hess-Bright bearings rear end of main transmission shaft	Yes	Yes	Plain	Yes
Hess-Bright bearings on auxiliary transmission shaft	Yes	Yes	No	Yes
Hess-Bright bearings on counter-shaft, inside end	Yes	Yes	No	Yes
Hess-Bright bearings on sprocket end of counter-shaft	Yes	Yes	No	Yes
Hess-Bright bearings on four wheels	Yes	Yes	No	Yes
Side chain drive	Yes	Yes	Yes	Yes
Chain pull inside of bearings pulling forward on inside and back on outside bearing	No	Yes	Yes	Yes
Scientific chain pull between and pulling forward on both bearings	Yes	No	No	No
Metallic pan underneath motor	Yes	Yes	Yes	Yes
Forged I-beam front axle	Yes	Yes	Yes	Yes
Cross steering rod in rear and protected by front axle, an important safety device	Yes	Yes	No	No
Forged I-beam rear axle	Yes	Yes	Yes	Yes
Trussed cold pressed steel frame, reinforced at bends	Yes	Late advices show frames are now trussed on most high-powered foreign cars.		
Great rigidity and strength of construction	Yes	Yes	Yes	Yes
Spark and throttle control through steering gear	Yes	Yes	Yes	Yes
Brakes—four extra wide surface (two metal to metal and two leather to metal)	Yes	Yes	Leather	Yes
Commutator on dash-board	Yes	No	No	No
Single coil	Yes	No	Yes	No
Aluminum dash	Yes	No	No	No
Mahogany lockers on dash	Yes	No	No	No
Brass oil drip pan on dash	Yes	No	No	No
Coil and commutator under curved dash protected from weather and dust	Yes	No	No	No
Dust-proof body, positively no dust suction	Yes	No	No	No
Body—roomy, seating seven facing forward	Yes	Yes	Yes	Optional
Two revolving, collapsible, detachable, fully upholstered seats in rear compartment	Yes	Yes	Optional	Optional
Room for two suit cases in rear of front seats	Yes	No	No	No
Coat rack in rear of front seats	Yes	No	No	No
Package rack in rear of front seats	Yes	No	No	No
Waterproof tire and tool locker under rear of body	Yes	No	No	No
Wheel base	118″	up to 127″	109″ to 125″	106″ to 134″
Spring—Front—Rear	Semi-elliptical	Semi-elliptical	Semi-elliptical	Semi-elliptical



THE DROP FORGINGS OF THE THOMAS, MODEL XXXI

Chasmar-Winchell Press New York and Pittsburgh